



FCC TEST REPORT

FCC ID: 2AUJ3-MIR-IR100

Product	:	Wireless PIR motion Sensor
Model Name	:	MIR-IR100
Additional Model	:	MIR-IR100-ZB, MIR-IR100-MG22, MIR-IL100
Brand	:	N/A
Report No.	:	PTC25081825008E-FC02
Prepared for		
SHENZHEN MULTI IR TECHNOLOGY CO., LTD		
5th-7th Floor, Building B, No. 8 North District, Shangxue Technology Park, Bantian Street, Longgang Shenzhen, 5181000 China		
Prepared by		
Precise Testing & Certification Co., Ltd.		
Building 1, No. 6, Tongxin Road, Dongcheng Street, Dongguan, Guangdong, China.		



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TEST RESULT CERTIFICATION

Applicant's name : SHENZHEN MULTI IR TECHNOLOGY CO., LTD
Address : 5th-7th Floor, Building B, No. 8 North District, Shangxue
Technology Park, Bantian Street, Longgang Shenzhen, 5181000
China
Manufacture's name : SHENZHEN MULTI IR TECHNOLOGY CO., LTD
Address : 5th-7th Floor, Building B, No. 8 North District, Shangxue
Technology Park, Bantian Street, Longgang Shenzhen, 5181000
China
Product name : Wireless PIR motion Sensor
Model name : MIR-IR100
Additional Model : MIR-IR100-ZB, MIR-IR100-MG22, MIR-IL100
Test procedure : FCC CFR47 Part 1.1307(b)(1)
Test Date : September 10, 2025 to September 18, 2025
Date of Issue : September 18, 2025
Test Result : PASS

This device described above has been tested by PTC, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Test Engineer:

A handwritten signature in black ink, appearing to read 'Jack Zhou'.

Jack Zhou / Engineer

Technical Manager:

A handwritten signature in black ink, appearing to read 'Simon Pu'.

Simon Pu / Manager



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2 Test Summary

Test Items	Test Requirement	Result
Maximum Permissible Exposure (Exposure of Humans to RF Fields)	15.247 (i)	PASS
Remark:		
N/A: Not Applicable		



3 General Information

3.1 General Description of E.U.T.

Product Name	:	Wireless PIR motion Sensor
Model name	:	MIR-IR100
Additional Model	:	MIR-IR100-ZB,MIR-IR100-MG22,MIR-IL100
Model Difference	:	Only the model names are different, everything else are the same.
Specification	:	Zigbee
Operating frequency	:	2405-2480MHz
Modulation	:	O-QPSK + DSSS For Zigbee
Number of Channel	:	16 channels For Zigbee
Antenna installation	:	PCB antenna
Antenna Gain	:	4.36 dBi
Power supply	:	Battrey: Model: CR123A Voltage: DC 3V
Hardware Version	:	N/A
Software Version	:	N/A



4 RF Exposure

Test Requirement : FCC Part 1.1307(b)(1)

Evaluation Method : KDB 447498 D01 General RF Exposure Guidance v06

4.1 Requirements

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.2 m normally can be maintained between the user and the device.

4.2 The procedures / limit

(A) Limits for Occupational / Controlled Exposure

Frequency Range	Electric Field	Magnetic Field	Power Density (S)	Averaging Time
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842 / f	4.89 / f	(900 / f)*	6
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-100,000			5	6

(B) Limits for General Population / Uncontrolled Exposure

Frequency Range	Electric Field	Magnetic Field	Power Density (S)	Averaging Time
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1.0	30

Note: f = frequency in MHz ; *Plane-wave equivalent power density



4.3 MPE Calculation Method

$$E \text{ (V/m)} = \frac{\sqrt{30 \times P \times G}}{d} \quad \text{Power Density: } P_d \text{ (W/m}^2\text{)} = \frac{E^2}{377}$$

E = Electric field (V/m)

P = Peak RF output power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

$$P_d = \frac{30 \times P \times G}{377 \times d^2} \theta \varphi$$

From the peak EUT RF output power, the minimum mobile separation distance, d=0.2m, as well as the gain of the used antenna, the RF power density can be obtained

4.4 Test Result

Mode	Antenna Gain (numeric)	Max. Peak Output Power (dBm)	Tune up tolerance (dBm)	Max Tune Up Power (mW)	Power Density (mW/cm ²)	Limit of Power Density (mW/cm ²)	Result
2405	2.73	8.43	8.43 ± 1	8.770008211	0.004761238	1	Pass

Conclusion:

1. Calculate in the worst-case mode.
2. Max. Tune Up Power is declared by manufacturer, and used to calculate.

*******THE END REPORT*******